

# QCD Meeting 6/27/02

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## 1. News/announcements Jay/Joey

\*\*note that on July 11, John Campbell will talk at the QCD meeting on W/Z + jets and MCFM

\*\*on Aug 22, Pino Marchesini will talk at the QCD meeting on some new Run 2 QCD measurement proposals

## Run 2

### 2. Secondary dataset stripping status 15'

Giuseppe Latino

### 3. Jet rate as a function of integrated luminosity 15'

Frank Chlebana

### 4. Global data/background comparisons 20'

Bruce Knuteson

### 5. Jet shapes and energy distributions in Run 2 30' (preblessing)

Mario Martinez

## Run 1

### Blessings

### 6. Underlying event at 630 and 1800 GeV (re blessing of some plots) 20'

Joey Huston

### 7. Double gap results (re blessing of some plots) 20'

Mary Convery

# Papers of the Week

- [hep-ph/0206194](#); Isolating a light Higgs boson from the di-photon background at the LHC, Zvi Bern, Lance Dixon, Carl Schmidt; We compute the QCD corrections to the gluon fusion subprocess  $gg \rightarrow \gamma\gamma$ , which forms an important component of the background to the search for a light Higgs boson at the LHC. We study the dependence of the improved  $pp \rightarrow \gamma\gamma X$  background calculation on the factorization and renormalization scales, on various choices for photon isolation cuts, and on the rapidities of the photons. We also investigate ways to enhance the statistical significance of the Higgs signal in the di-photon channel.
- [hep-ph/0206195](#); Gluon Distribution Functions in the  $k_T$ -factorization Approach, Gosta Gustafson, Leif Lonnblad, Gabriela Miu; At small  $x$ , the effects of finite transverse momenta of partons inside a hadron become increasingly important, especially in analyses of jets and heavy-quark production. These effects can be systematically accounted for in a formalism based on  $k_T$ -factorization and unintegrated distribution functions. We present results for the unintegrated distribution function, together with the corresponding integrated one, obtained within the framework of the Linked Dipole Chain model. Comparisons are made to results obtained within other approaches.

## Talks at Amsterdam

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- Photon + Jet Physics from CDF
  - ◆ Jay Dittmann
- Heavy Flavor Production at CDF
  - ◆ Christoph Paus

# Other Talks

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- Hadron Structure '02, Her'lany, Slovakia, 22-27 Sept.

# News

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- Jet datasets now available on disk (stay tuned for Giuseppe's talk)
- Jean-Francois Arguin has a nice talk on primary vertex finding:  
[http://www.physics.utoronto.ca/~jarguin/corr\\_meet\\_soft180602.ps](http://www.physics.utoronto.ca/~jarguin/corr_meet_soft180602.ps)

# Disk Space

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- Current disk space under control of physics groups:

- ◆ 1.0 TB top/ewk                      cdfptopd
- ◆ 1.1 TB exotics cdfpexod
- ◆ 1.1 TB qcd                              cdfpqcdd
- ◆ 1.5 TB bottom cdfpbotd

- 5 additional TB of disk space have been added to fcdfsi2; proposal is to provide an increase to physics groups proportional to last division; so latest totals will be

- ◆ 2.0 TB top/ewk                      cdfptopd
- ◆ 2.1 TB exotics                      cdfpexod
- ◆ 2.35 TB qcd                              cdfpqcdd
- ◆ 3.25 TB bottom                      cdfpbotd